

Annual Meeting of the Endocrine Society: Highlights

Dr. Seymour Reichlin opened the symposium with an elegant review of the endocrine physiologic factors that interact in response to stress. The entire brain-hypothalamic-pituitary end-organ axis is activated. Much of the presentation centered on the neuroendocrine aspects, with emphasis on the interactions between the neuroendocrine axis for corticotropin release and the immune regulatory system. Interleukins 1 and 6 (IL-1 and IL-6) are particularly involved in the activation of the neuroendocrine system in response to stress; however, it is not a global activation. Data were presented to show that IL-1B activation through specific IL-1 receptors differed substantially from the bacterial lipopolysaccharide-stimulated IL-6 release of rat anterior pituitary cells.

Exciting new insights into the interactions among the great integrative systems of physiology (endocrine,

neuroendocrine, and immunologic) will be forthcoming in the near future as some of the endocrine, paracrine, and possibly autocrine activities are uncovered and the corresponding physiologic mechanisms described.

Dr. Larry Parker reviewed the past decade's data on the elusive pituitary factor that stimulates adrenal androgen production. This factor, alternatively called AASH (adrenal androgen-stimulating hormone) and CASH (cortical androgen-stimulating hormone), reportedly is synthesized in the anterior pituitary gland, differs from corticotropin, and is regulated by mechanisms that differ from those described for corticotropin. Partial amino-acid sequence data were presented that indicate/identify with a part of the joining peptide of pro-opiomelanocortin (POMC), but at present there are no unequivocal chemical or biologic data to consider the AASH (activity) a single, distinct entity with a

proven structure and physiologically relevant activities.

Dr. Lynn Loriaux delivered another of his comprehensive, well-balanced lectures on the vast experience of the National Institutes of Health (NIH) group using corticotropin-releasing hormone (CRH). The subjects chosen — patients with Cushing's syndrome and those with depression — reflect the great numbers of patients referred to the NIH and the close working relationship between the psychiatrists and the endocrinologists. Responses to exogenous CRH are abnormal in both groups of patients. Exogenous CRH is probably more helpful in categorizing patients with Cushing's syndrome into specific pathophysiologic entities, eg, ectopic Cushing's syndrome and Cushing's disease. Emphasis was placed upon the

clinical presentation and the sum of the biochemical and imaging tests rather than upon the CRH (or any other single) test.

Suffice it to say that there remains significant biologic variability even within seemingly single biologic entities and that the CRH test is but another "window" into the disordered neuroendocrine axis for adrenal function in both of these syndromes.

Dr. Louis Underwood opened the symposium with a review of the expanding role for growth hormone (GH) in non-GH-deficient states. Great controversy still exists in the definition of some of these states and upon the efficacy of both short- and long-term hormonal treatment. GH is efficacious in accelerating growth in girls with Turner syndrome and may increase adult height in these girls. A particularly exciting new

use is to increase the efficient harvesting of ova for in vitro fertilization.

Dr. Richard Fine presented an update of his and other studies using GH in growth-retarded children with chronic renal insufficiency. There are a number of relatively short-term studies that indicate a growth-promoting effect of this hormone in these children. None has followed children to adult height to see if the predicted gains actually continue to final height. The data were exciting, and the role of GH treatment in this and other conditions is but one of the avenues being explored.

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